

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry hereof, claims 1-10 are pending in the application, with claim 1 being the independent claim.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 102***

In the Office Action, the Examiner sustains the rejection of claims 1-8 and 10 under 35 U.S.C. § 102(e), as allegedly being anticipated by U.S. Patent No. 6,563,829 to Lyles *et al.* (herein referred to as “Lyles”). (See Paper No. 03242005, page 2). Applicants respectfully traverse.

As discussed in Applicants’ previous Amendment and Reply (filed on December 8, 2004), Lyles does not disclose each and every element, limitation, and/or feature of claims 1-10. For example, with respect to independent claim 1, Lyles does not disclose a method for “managing upstream communications ***from the local scheduler***” that comprises any of the following:

(c) ***considering the needs of a plurality of services***, said plurality of services including the requesting service and at least one other service;

(d) ***scheduling*** packets for said plurality of services ***in response to said considering step***; and

(e) transmitting a burst based on the scheduled packets to the remote node.

Lyles, on the contrary, describes a shared-media network in which any downstream and upstream scheduling is executed by its head-end controller 105 (or other bandwidth allocation unit 305). (Lyles, col. 8, lines 35-37 and lines 44-51). The Examiner's rejection is premised on an erroneous interpretation of the above passage from Lyles. In the Office Action, the Examiner asserts that "the 'bandwidth manager', does not have scheduling functions, and could not allocate bandwidth without scheduling information received from network access unit 315." (Paper No. 03242005, page 5). However, referring to lines 42-47 in column 2, Lyles teaches:

Bandwidth Allocation Unit (BAU). The collection of those bandwidth allocation functions co-located within a head-end controller ***responsible for the scheduling*** and allocation of transmission resources ***for both the downstream and the upstream*** channels of the shared media. (emphasis added).

Therefore, Lyles teaches that its bandwidth allocation unit 305 (BAU 305) performs more than merely "allocat[ing] bandwidth for transmitting data based on scheduling information and resource requests 405 received from the scheduler of the network access unit 315," as suggested by the Examiner. More specifically, Lyles teaches a:

method, executed by the head-end controller 105 (or other bandwidth allocation unit 305), comprises:

(a) receiving a transmission authorization request 405 [4] from an identified terminal equipment 210 as illustrated in Lines 517 through 519 of FIG. 5 the ***transmission authorization request 405 being associated with a requested transmission***;

(b) generating a virtual scheduling time [5] for the requested transmission, based on (1) the time of arrival of the transmission authorization request 405 [6], (2) a class of service associated with the transmission authorization request

405 [7], and (3) a virtual scheduling time of a previous transmission authorization request 405 made on behalf of the identified terminal equipment 210 [8].” (Lyles, col. 8, lines 35-37 and lines 44-51).

Therefore, Lyles teaches that each request from a network access unit (NAU 315) is “associated with a requested transmission”, and an authorization grant received by the requesting NAU 315 is utilized to transmit the “requested transmission.” In other words, Lyles’ NAU 315 must utilize the grant for the service that corresponds to the requested transmission. At no place does Lyles teach or suggest that the scheduler (or any other component) within NAU 315 may utilize a grant for any service other than the “requested transmission.” The passages identified by the Examiner as describing multiple quality of services and class of services (i.e., col. 7, lines 7-9; col. 8, lines 44-48) actually describes the function of the head-end controller 105 and BAU 305, as previously discussed.

Contrary to Lyles, Applicants’ claim 1 permits a flexible use of grants (see Paragraphs 0044-0047 in Applicants’ specification). Referring back to claim 1, when the local scheduler receives a grant specification, the local scheduler has the flexibility to decide whether to utilize the grant specification for the requesting service or for another service by “considering the needs of a plurality of services”. Lyles provides no description of any decisioning process that is implemented by its NAU 315. Therefore, Lyles cannot teach Applicants’ invention, as recited in independent claim 1.

Dependent claims 2-10 depend from claim 1, and therefore, are patentable over Lyles for at least the reasons stated above, in addition to the elements, limitations, and/or features recited therein. Accordingly, Applicants respectfully request reconsideration

and withdrawal of the Examiner's rejection of the aforesaid claims, and allowance thereof.

***Rejections under 35 U.S.C. § 103***

In the Office Action, the Examiner sustains the rejection of claim 9 under 35 U.S.C. § 103(a), as allegedly being unpatentable over Lyles. (See Paper No. 03242005, page 4). Applicants respectfully traverse.

As discussed above with respect to the rejections under 35 U.S.C. § 102(e), claim 9 depends from claim 1, and therefore, is patentable over Lyles for at least the reasons stated above, in addition to the elements, limitations, and/or features recited therein. Accordingly, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection of the aforesaid claims, and allowance thereof.

***Information Disclosure Statement***

In the Office Action, the Examiner indicates that the USPTO has been unable to locate the Supplemental Information Disclosure Statement (IDS) filed by Applicants on May 28, 2003. In response, Applicants provide herewith a duplicate of the originally filed IDS. The IDS includes a duplicate of the originally filed Form PTO-1449 and each of the eight (8) documents cited on the Form. Also provided is a duplicate of the postcard receipt, which itemizes and properly identifies these items, and thus serves as *prima facie* evidence of receipt in the USPTO of all items listed thereon on the date stamped thereon (i.e., May 28, 2003). (See MPEP § 503). Therefore, Applicants believe

that no fees are required for the resubmission of the IDS since it was properly filed under 37 C.F.R. § 1.97(b). Applicants respectfully request consideration thereof.

### ***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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